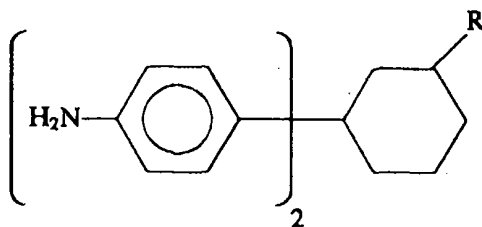


We claim:

1. 1,1-bis(4-aminophenyl)-3-alkylcyclohexane of the formula I



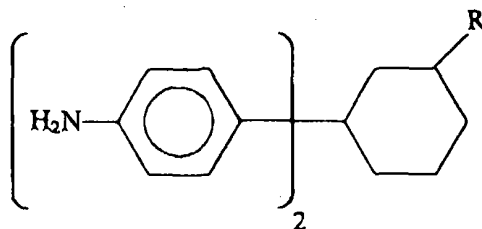
Formula I

wherein R is an alkyl radical with at least 8 carbon atoms.

2. 1,1-bis(4-aminophenyl)-3-alkylcyclohexane as claimed in claim 1 wherein R is an alkyl radical with 8 to 18 carbon atoms.

3. A 1,1-bis(4-aminophenyl)-3-alkylcyclohexane as claimed in claim 1 wherein R is pentadecyl.

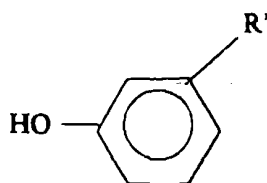
4. A process for preparing 1,1-bis(4-aminophenyl)-3-alkylcyclohexane of the formula I



Formula I

wherein R is an alkyl radical with at least 8 carbon atoms, said process comprising:

- (a) hydrogenating a composition comprising substituted phenols of the formula II



Formula II

wherein R' is an alkyl or alkenyl radical containing at least 8 carbon atoms, to the corresponding substituted cyclohexanols;

- (b) oxidizing the substituted cyclohexanols to corresponding cyclohexanones; and
(c) reacting the cyclohexanones obtained in step (b) with aniline in the presence of an acidic catalyst to obtain the compound of formula I.

5. A process as claimed in claim 4 wherein R' is selected from the group consisting of pentadecyl, C₁₅ mono-olefinic radical, C₁₅ di-olefinic radical, C₁₅ tri-olefinic radical and any mixture thereof.
6. A process as claimed in claim 4 wherein the composition of step (a) is cashew nut shell liquid.
7. A process as claimed in claim 4 wherein step (a) is carried out at a temperature in the range of 120-160°C and a pressure in the range of 500 - 1000 psi and in the presence of a Group VIII metal catalyst.
8. A process as claimed in claim 7 wherein the Group VIII metal is selected from ruthenium and nickel.
9. A process as claimed in claim 7 wherein the Group VIII metal catalyst is provided on a support.
10. A process as claimed in claim 9 wherein the support is selected from the group consisting of carbon, silica, alumina, silica-alumina, aluminum phosphate, calcium phosphate, zinc aluminate and zinc titanate.
11. A process as claimed in claim 4 wherein the oxidation of step (b) is carried out using an oxidizing agent selected from the group consisting of hexavalent chromium compound, a hypochlorite, a peroxide and molecular oxygen.
12. A process as claimed in claim 11 wherein the hexavalent chromium compound is selected from sodium dichromate and pyridinium chlorochromate.
13. A process as claimed in claim 11 wherein the hypochlorite comprises calcium hypochlorite.
14. A process as claimed in claim 11 wherein the peroxide is selected from hydrogen peroxide and t-butyl peroxide.
15. A process as claimed in claim 4 wherein step (b) is carried out at room temperature.
16. A process as claimed in claim 4 wherein the acidic catalyst used in step (c) is selected from acidic clay, aqueous hydrogen chloride and aniline hydrochloride.
17. A process as claimed in claim 4 wherein step (c) is carried out at a temperature in the range of 140 - 160°C.
18. A process for the preparation of 1,1-bis(4-aminophenyl)-3-pentadecylcyclohexane, comprising
- (a) hydrogenating a composition comprising 3-pentadecylphenol obtained from cashew nut shell liquid to 3-pentadecylcyclohexanol, in the presence of a ruthenium catalyst;

- (b) oxidizing 3-pentadecylcyclohexanol to 3-pentdecylcyclohexanone with an oxidizing agent;
 - (c) reacting 3-pentdecylcyclohexanone with aniline in the presence of an acidic catalyst to obtain 1,1-bis(4-aminophenyl)-3-pentdecylcyclohexane.
- 5 19. A process as claimed in claim 18 wherein step (a) is carried out at a temperature in the range of 120-160°C and a pressure in the range of 500 – 1000 psi.
20. A process as claimed in claim 18 wherein the oxidation of step (b) is carried out using an oxidizing agent selected from the group consisting of hexavalent chromium compound, a hypochlorite, a peroxide and molecular oxygen.
- 10 21. A process as claimed in claim 20 wherein the hexavalent chromium compound is selected from sodium dichromate and pyridinium chlorochromate.
22. A process as claimed in claim 20 wherein the hypochlorite comprises calcium hypochlorite.
23. A process as claimed in claim 20 wherein the peroxide is selected from hydrogen
- 15 peroxide and t-butyl peroxide.
24. A process as claimed in claim 18 wherein step (b) is carried out at room temperature.
25. A process as claimed in claim 18 wherein the acidic catalyst used in step (c) is selected from acidic clay, aqueous hydrogen chloride and aniline hydrochloride.
26. A process as claimed in claim 18 wherein step (c) is carried out at a temperature in the
- 20 range of 140 - 160°C.

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